

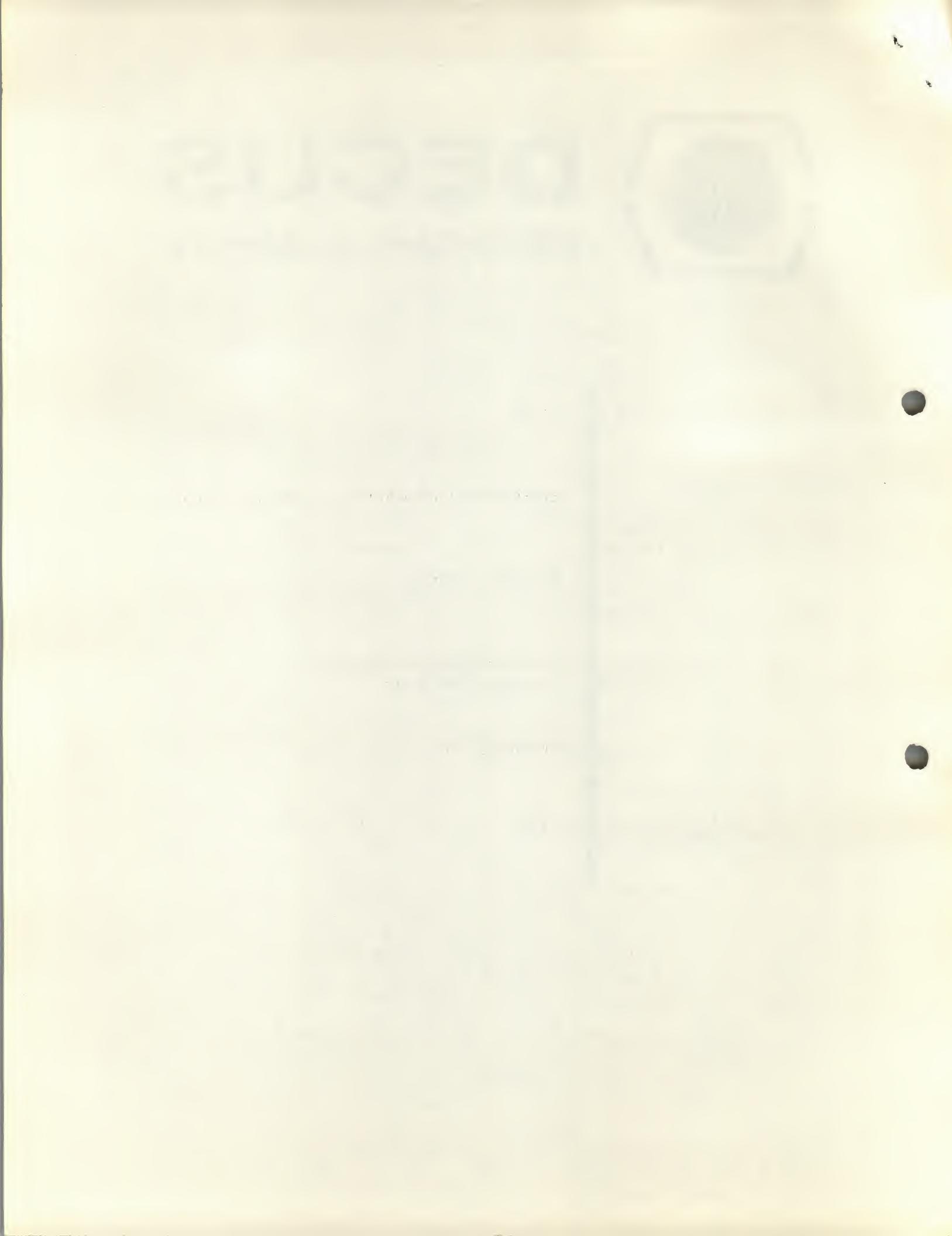


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TITLE	8K FORTRAN BIT MANIPULATION SUBROUTINES
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8K FORTRAN BIT MANIPULATION SUBROUTINES

DECUS Program Library Write-up

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Programming Notes for LBYT and SBYT Subroutines when Using PDP-8 8K Fortran

These notes describe two closed subroutines which may be used by the FORTRAN programmer for bit manipulations. One page of core and EAE are required by each subroutine.

1. LBYT function subroutine. This subroutine will load a byte of length LENGTH from word KWORD and store it right-adjusted in the fixed accumulator. LSB is the rightmost (least significant) bit of byte.

Calling sequence: A = LBYT (KWORD, LSB, LENGTH)

A: Any variable

KWORD: Any integer

LSB: Least significant bit position of byte. Range from \emptyset to 11 inclusive

LENGTH: Byte length. Range from \emptyset to 12 inclusive

2. SBYT subroutine. This subroutine will load a byte from IBYTE, left-adjust by LFTAJ places and store in INTGR, where LENGTH is the byte length.

Calling sequence: Call SBYT (INTGR, LFTAJ, LENGTH, IBYTE)

INTGR: Any integer

LFTAJ: Number of bit positions to left-adjust byte. Range from \emptyset to 12 inclusive

LENGTH: Byte length. Range from \emptyset to 12 inclusive

IBYTE: An integer containing the desired byte right-adjusted

NOTE: Function subroutine LBYT may be used in place of the fourth argument IBYTE if desired.

